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BULLETIN NO.

99-2

Date: **June 1999**

Code Ref. Update: **April 2006**

Subject: **Testing of Backflow
Preventers**

Reference: **N.J.A.C. 5:23-2.23(k)**
N.J.A.C. 5:23-3.15
**Plumbing Subcode Section
10.5.6**

For some time now, the Uniform Construction Code has required that backflow preventers be tested. This requirement is often overlooked because there are no specific guidelines for enforcement. In an effort to promote the testing of backflow preventers, the Department of Community Affairs is publishing this bulletin to give guidance on what devices need to be tested, when they need to be tested, and who may perform the test.

Enforcing agencies should ensure that those devices which isolate cross connections between the water supply and contaminants that are toxic are tested at least annually, as required by the regulations. Reduced-pressure backflow preventers and, in some cases, pressure vacuum breakers are generally used to isolate toxic substances from the potable water supply. Locations where cross connections between toxic substances and the potable water supply are likely to be encountered include, but are not limited to, lawn sprinklers with chemical injectors, fire sprinklers with antifreeze loops, laboratories, chemical and industrial plants, large boilers, hospitals, and waste-water treatment plants.

Inspectors are not permitted to perform the test. The inspector's role is to make sure that the owner of the facility has those backflow preventers which present a significant risk tested by a qualified individual. The inspector can ensure this either by witnessing the test, or having the owner submit a certification that the device was tested. This certification should identify the type and location of the device; the date tested; the results of the test; and the name, qualifications, and signature of the tester.

As evidenced by Section 10.5.6 of the Plumbing Subcode, those people testing devices need to exhibit some qualifications. The tester shall have a certification from an agency recognized by the New Jersey Department of Environmental Protection, Bureau of Safe Drinking Water. Devices that do not pass the test are required to be repaired or replaced.

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Devices replaced on water supplies serving fire protection systems shall be approved for fire protection service and shall not reduce the effectiveness of the fire protection system. A permit shall be required for all backflow preventer replacements. Where the backflow preventer is installed on a water service that is a dedicated fire line, the application shall be submitted on a Fire Protection Subcode Technical Section. Where the water service provides both fire and domestic needs, the application shall be submitted on a Plumbing Subcode Technical Section. However, joint plan review by both the plumbing subcode and fire protection subcode officials shall be required for devices serving dual domestic and fire protection systems.

A form that can be used by enforcing agencies to document the testing of backflow preventers follows.

Cross Connection Control Device Performance Test

Attachment
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Control Device Permit No. _____

Date of Test

Owner Information

Owner Name	Street Address
City	State, Zip Code

Project Information

Project Name	Street Address	
City, State, Zip Code	County	
Assembly Location		
Manufacturer	Model	Serial Number

Size _____ Assembly Type: _____ RP _____ RP Detector _____ DCV _____ DCV Detector _____ PVB

INITIAL TEST

1st Check

____ Closed tight

____ Leaked

Static _____ PSID

2nd Check

____ Closed tight

____ Leaked

Static _____ PSID

RP relief valve

Opened at _____ PSID

____ Did not open

FINAL TEST

____ Closed tight

Static _____ PSID

____ Closed tight

Static _____ PSID

Opened at _____ PSID

DETECTOR BYPASS ASSEMBLY INITIAL TEST

1st Check

____ Closed tight

____ Leaked

Static _____ PSID

2nd Check

____ Closed tight

____ Leaked

Static _____ PSID

RP relief valve

Opened at _____ PSID

____ Did not open

DETECTOR BYPASS ASSEMBLY FINAL TEST

____ Closed tight

Static _____ PSID

____ Closed tight

Static _____ PSID

Opened at _____ PSID

PRESSURE VACUUM BREAKER INITIAL TEST

Air inlet valve

Opened at _____ PSID

____ Did not open

Check valve

____ Closed tight

____ Leaked

Static _____ PSID

PRESSURE VACUUM BREAKER FINAL TEST

Air inlet valve

Opened at _____ PSID

Check valve

____ Closed tight

Static _____ PSID

BACKFLOW ASSEMBLIES IN FIRE PROTECTION SYSTEMS

Note: Include hose stream demand where applicable.

Forward flow test

Designed flow rate _____ GPM

No. of nozzles flowed _____

Inlet flow pressure _____ PSI

Actual flow rate _____ GPM

Nozzle size _____

Outlet flow pressure _____ PSI

Pitot pressure _____ PSID

Control Valves

____ No. one shut-off valve open

____ No. two shut-off valve open

Valve supervision: ____ Tamper switch ____ Locked

I HEREBY CERTIFY THE TEST RESULTS ARE TRUE AND THE TEST WAS CONDUCTED BY ME PERSONALLY.

Certified Tester Name _____
Type or Print

Cert. Tester No. _____

Cert. Tester Signature _____

Expiration Date _____

Address _____

Telephone No. _____

Date _____